UN

E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.82/Rev.1/Amend.1
19 July 1995

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL AND RECIPROCAL RECOGNITION OF APPROVAL FOR MOTOR VEHICLE EQUIPMENT AND PARTS

done at Geneva on 20 March 1958

Addendum 82: Regulation No. 83

Revision 1 – Amendment 1

02 series of amendments – Date of entry into force: 2 July 1995

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO THE EMISSIONS OF POLLUTANTS ACCORDING TO ENGINE FUEL REQUIREMENTS

UNITED NATIONS

Paragraph 4.4.1., footnote 1/, pertinent to this paragraph, amend to read:

"1/ ... 23 for Greece, 24 (vacant), 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus and 29 for Estonia. Subsequent ..."

Paragraph 5.2.1., amend to read:

"5.2.1. Positive ignition engine powered vehicles must be subject to the following tests, as shown in Table 1:

- Type I: (Simulating the average tailpipe emissions after a cold start)
- Type II: (Carbon monoxide emission at idling speed)
- Type III: (Emission of crankcase gases)
- Type IV: (Evaporation emissions)
- Type V: (Durability of anti-pollution devices)."

Paragraph 5.2.2. should be deleted.

Paragraph 5.2.3., amend to read:

"5.2.3. Compression-ignition engine powered vehicles must be subject to the following tests, as shown in Table 1:

- Type I: (Simulating the average tailpipe emissions after a cold start)
- Type V: (Durability of anti-pollution devices)."

Paragraph 5.2.4. should be deleted.

Table 1: Approval system, replace by the following table (footnotes 5/ and 6/ being deleted):

"Table 1: Approval system

Type-Approval Test	Vehicles fuelled with leaded petrol Approval A	Vehicles fuelled with unleaded petrol Approval B	Vehicles fuelled with diesel fuel Approval C
	(identical to Regulation No. 15.04) M1, N1	M1 vehicles 3/ N1 vehicles 4/	M1 vehicles N1 vehicles
Type I:	YES (mass ≤ 3.5 tonnes) PART 1	YES (mass ≤ 3.5 tonnes) PART 1 AND PART 2	YES (mass ≤ 3.5 tonnes) PART 1 AND PART 2
Type II:	YES	YES (mass > 3.5 tonnes)	---
Type III:	YES	YES	---
Type IV:	---	YES (mass ≤ 3.5 tonnes)	---
Type V:	---	YES (mass ≤ 3.5 tonnes)	YES (mass ≤ 3.5 tonnes)
Extension:	paragraph 7	paragraph 7	paragraph 7; M2 and N2 vehicles with reference mass not more than 2,840 kg;

3/, 4/ In application of paragraphs 5.1.2.1. (restricted filler orifice) and 5.1.2.2. (marking)."

Paragraph 5.3.1.2.1., amend to read:

"5.3.1.2.1. With the exception of the vehicles referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A), a test lasting a total of 19 minutes ...."

Paragraph 5.3.1.2.4., amend to read:

"5.3.1.2.4. For the ....
.... 13 minutes ...."

Paragraph 5.3.1.4., amend to read:

"5.3.1.4. Subject to the requirements of paragraphs 5.3.1.4.5. and 5.3.1.5., the test shall be repeated three times. Except for the vehicles referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A), for each test the results shall be multiplied by ...."

Paragraph 5.3.1.4.2.1., amend to read:

"5.3.1.4.2.1. For vehicles equipped with a positive-ignition engine fuelled with unleaded petrol, the limits shall be:

Category of vehicle		Reference mass	Limit values	
			Mass of carbon monoxide	Combined mass of hydrocarbons and oxides of nitrogen
		Rm (kg)	L1 (g/km)	L2 (g/km)
M 5/		All	2.72	0.97
N1 6/	Category I	Rm ≤ 1,250	2.72	0.97
	Category II	1,250 < Rm ≤ 1,700	5.17	1.4
	Category III	1,700 < Rm	6.9	1.7

5/ Except:
- vehicles designed to carry more than six occupants including the driver;
- vehicles whose maximum mass exceeds 2,500 kg.

6/ And those category M vehicles which are specified in note 5/."

Paragraphs 5.3.1.4.2.2. and 5.3.1.4.2.3. should be deleted.

Paragraph 5.3.1.4.3.1., amend to read:

"5.3.1.4.3.1. For vehicles equipped with a compression-ignition engine fuelled with diesel fuel, the limits shall be:

Category of vehicle		Reference mass	Limit values		
			Mass of carbon monoxide	Combined mass of hydrocarbons and oxides of nitrogen	Mass of particulates
		Rm (kg)	L1 (g/km)	L2 (g/km)	L4 (g/km)
M 5/		All	2.72	0.97	0.14
N1 6/	Category I	Rm ≤ 1,250	2.72	0.97	0.14
	Category II	1,250 < Rm ≤ 1,700	5.17	1.4	0.19
	Category III	1,700 < Rm	6.9	1.7	0.25

5/ Except:
- vehicles designed to carry more than six occupants including the driver;
- vehicles whose maximum mass exceeds 2,500 kg.

6/ And those category M vehicles which are specified in note 5/."

Paragraphs 5.3.1.4.3.2. and 5.3.1.4.3.3. should be deleted.

Paragraphs 5.3.2.1. and 5.3.2.2., amend to read:

"5.3.2.1. This test is carried out on vehicles powered by a positive-ignition engine and referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A), and on vehicles with a mass exceeding 3.5 tonnes (Approval B).

5.3.2.2. When tested in accordance with annex 5, the carbon monoxide content by volume of the exhaust gases emitted with the engine idling must not exceed 3.5% at the setting specified by the manufacturer, or at the settings used for Type I test (Approval A), and must not exceed 4.5 per cent within the range of adjustments specified in annex 5."

Paragraph 5.3.4.1., amend to read:

"5.3.4.1. This test shall be carried out on all vehicles referred to in paragraph 1 except those vehicles having a compression-ignition engine and those vehicles referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A), and those vehicles fuelled with unleaded petrol having a maximum mass exceeding 3.5 tonnes."

Paragraph 5.3.5.1., amend to read:

"5.3.5.1. This test shall be carried out on all vehicles referred to in paragraph 1 to which the test specified in paragraph 5.3.1. applies, with the exception of those vehicles referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A)."

Paragraph 7.1.1.1., amend to read:

"7.1.1.1. Vehicles other than those referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A):

Approvals may be extended only to vehicle types of a reference mass requiring the use of the next higher equivalent inertia or any lower equivalent inertia."

Insert a new paragraph 7.1.1.2., to read:

"7.1.1.2. In the case of vehicles of category N_1 and vehicles of category M referred to in note 5/ of paragraph 5.3.1.4., if the reference mass of the vehicle type for which extension of the approval is requested requires the use of a flywheel of equivalent inertia lower than that used for the vehicle type already approved, extension of the approval is granted if the masses of the pollutants obtained from the vehicle already approved are within the limits prescribed for the vehicle for which extension of the approval is requested."

Paragraph 7.1.1.2. (former), renumber as 7.1.1.3. and amend to read:

"7.1.1.3. Vehicles referred to in paragraphs 5.3.1.4.1.1. and 5.3.1.4.1.2. (Approval A):"

Paragraphs 7.1.1.2.1. to 7.1.1.2.3., renumber as paragraphs 7.1.1.3.1. to 7.1.1.3.3.

Paragraph 8.3.1.1.2.1., amend to read:

"8.3.1.1.2.1. The limits shown in paragraph 5.3.1.4.2.1. are replaced by:

Category of vehicle	Reference mass	Limit values	
		Mass of carbon monoxide	Combined mass of hydrocarbons and oxides of nitrogen
	Rm (kg)	L1 (g/km)	L2 (g/km)
M 5/	All	3.16	1.13
N1 6/	Rm ≤ 1,250	3.16	1.13
	1,250 < Rm ≤ 1,700	6.0	1.6
	1,700 < Rm	8.0	2.0

5/ Except:
- vehicles designed to carry more than six occupants including the driver;
- vehicles whose maximum mass exceeds 2,500 kg.

6/ And those category M vehicles which are specified in note 5/."

Paragraphs 8.3.1.1.2.2. and 8.3.1.1.2.3. should be deleted.

Paragraph 8.3.1.1.3.1., amend to read:

"8.3.1.1.3.1. The limits shown in paragraph 5.3.1.4.3.1. are replaced by:

Category of vehicle	Reference mass	Limit values		
		Mass of carbon monoxide	Combined mass of hydrocarbons and oxides of nitrogen	Mass of particulates
	Rm (kg)	L1 (g/km)	L2 (g/km)	L4 (g/km)
M 5/	All	3.16	1.13	0.18
N1 6/	Rm ≤ 1,250	3.16	1.13	0.18
	1,250 < Rm ≤ 1,700	6.0	1.6	0.22
	1,700 < Rm	8.0	2.0	0.29

5/ Except:
- vehicles designed to carry more than six occupants including the driver;
- vehicles whose maximum mass exceeds 2,500 kg.

6/ And those category M vehicles which are specified in note 5/."

Paragraphs 8.3.1.1.3.2. and 8.3.1.1.3.3. should be deleted.

Paragraph 13.1.2., amend to read:

"13.1.2. For the approval and production conformity of category M_1 vehicles (Approval B), equipped with positive-ignition engines and a capacity of more than 2,000 c^3, the test method shall be as described in paragraph 5.3.1.2.4."

Paragraph 13.2., amend to read:

"13.2. Approval of vehicles equipped with direct injection compression-ignition engines:

For vehicles of category M_1 5/ up to 1 July 1994 for type-approval and up to 31 December 1994 for the initial entry into service, and

for vehicles of category N_1 6/ up to 1 October 1994 for type-approval and up to 1 October 1995 for the initial entry into service,

the limit values for the combined mass of hydrocarbons and nitrogen oxides and for the mass of particulates of vehicles fitted with compression-ignition engines of the direct-injection type are those obtained by multiplying the values L2 and L4 in the tables in paragraph 5.3.1.4. (type-approval) and 8.1.1.1. (conformity check) by a factor of 1.4.

5/ Except:
- vehicles designed to carry more than six occupants including the driver;
- vehicles whose maximum mass exceeds 2,500 kg.

6/ And those category M vehicles which are specified in note 5/."

Paragraph 13.3., amend to read:

"13.3. B or C approval for underpowered vehicles with a maximum speed not exceeding 130 km/h:

13.3.1. For vehicles of category M 5/ with a maximum engine power of no more than 30 kW and a maximum speed not exceeding 130 km/h, the maximum speed of the extra-urban cycle (part two) is limited to 90 km/h until 1 July 1994.

13.3.2. For vehicles of category N_1 6/ with a power-to-weight ratio of no more than 30 kW/t 11/ and a maximum speed not exceeding 130 km/h, the maximum speed of the extra-urban cycle (part two) is limited to 90 km/h until 1 January 1996 for vehicles of category I and until 1 January 1997 for vehicles of categories II and III.

After these dates, vehicles which do not attain the acceleration and maximum speed values required in the operating cycle must be operated with the accelerator control fully depressed until they once again reach the required operating curve. Deviations from the operating cycle must be recorded in the test report.

5/ Except:
- vehicles designed to carry more than six occupants including the driver;
- vehicles whose maximum mass exceeds 2,500 kg.

6/ And those category M vehicles which are specified in note 5/.

11/ Technically permissible laden mass as stated by the manufacturer."

Annex 2, amend to read:

Item 7, should be deleted;

Items 8., 8.1., 9. and 10., renumber as items 7., 7.1., 8. and 9.;

Item 11., should be deleted;

Items 12. to 12.3., renumber as items 10. to 10.3.;

Item 12.4., should be deleted;

Items 13. to 17., renumber as items 11. to 15;

Items 18. and 18.1., renumber as items 16. and 16.1., and amend to read:

"16. Test type I:

16.1. Results of approval tests: Carried out according to annex 4: 2/

CO: . . . . . g/test or g/km 2/

($HC + NO_x$): . . . . . g/test or g/km 2/

Particulates: . . . . . g/test or g/km 2/"

Items 18.2. to 18.6., renumber as items 16.2. to 16.6.;

Items 19. to 19.3., should be deleted;

Items 20. to 23., renumber as items 17. to 20.;

Item 24., renumber as item 21. and delete the text reading "1 Photograph of the engine and its compartment."

Annex 3, in the examples of the approval marks and in the captions below, amend the approval No. "012439" to read "02 2439" (6 times), and the words "01 series of amendments" amend to read "02 series of amendments." (three times)

Annex 4,

Paragraph 7.1., amend the reference to paragraph "6.6.2." to read paragraph "6.2.2."

Annex 5,

Paragraph 2.2., amend to read:

"2.2. The type II test

2.2.1. For Approval A, the type II test shall be carried out immediately after the completion of the urban cycle (part one) of the type I test, with the engine at idle and without using the cold-start device. Immediately before each measurement of carbon monoxide content, an elementary urban cycle as described in annex 4, paragraph 2.1. to this Regulation, shall be effected.

2.2.2. For Approval B, vehicles having a mass exceeding 3.5 tonnes, during the test the environmental temperature must be between 293 and 303 K (20J and 30°C). The engine shall be warmed up until all temperatures of cooling and lubrication means and the pressure of lubrication means have reached equilibrium."

Paragraph 2.5.2.1., amend to read:

"2.5.2.1. For Approval A, a measurement at setting used for type I test shall be performed first;

For Approval B, vehicles having a mass exceeding 3.5 tonnes, a measurement at the setting in accordance with the conditions fixed by the manufacturer is performed first."

Annex 6, paragraph 2.1., amend to read:

"2.1. The type III test shall be carried out according to provisions given in Table 1 of this Regulation."